

CLAIMS

Please amend the claims as follows.

1. (Previously Presented) An image scanning method for a scanner, comprising:
calculating a calibration parameter responsive to determining that the calibration parameter is not stored in memory;
using an image capturing element to perform image capturing on a scanning object;
calibrating the captured image using the calibration parameter; and
completing image scanning for the object and repeating the using an image capturing element for a subsequent scanning object without further calculating.
2. (Previously Presented) The image scanning method of claim 1, further comprising:
holding the scanning object via a holding board;
capturing the image of the scanning object via an optical chassis comprising an image capturing element; and
storing the calibration parameter via a control module comprising a read only memory (ROM) and reading the stored calibration parameter to calibrate the captured image.
3. (Previously Presented) The image scanning method of claim 2, wherein the holding the scanning object comprises holding the scanning object via the holding board comprising glass or acrylic material.
4. (Previously Presented) The image scanning method of claim 2, wherein the capturing the image of the scanning object comprises capturing the image of the scanning object via the image capturing element of the optical chassis comprising a charge coupled device (CCD).

5. (Previously Presented) The image scanning method of claim 2, further comprising:

projecting on the scanning object via a linear light source to generate a reflecting image reflecting the reflected image via one or more reflecting mirrors; and

refracting the reflected image through a lens to form an image on the image capturing element.

6. (Previously Presented) The image scanning method of claim 2, further comprising moving the optical chassis along the holding board to scan the object via a driver.

7. (Currently Amended) The image scanning method of claim 2, wherein the storing the ~~present~~ calibration parameter comprises storing the calibration parameter via the control module comprising a selected system file.

8.-14. (Canceled)

15. (Previously Presented) An image scanning method for a scanner, comprising: determining if a calibration parameter is stored and calculating a calibration parameter if no calibration parameter is stored;

using an image capturing element to perform image capturing on a scanning object;

using the calibration parameter obtained at the determining to perform compensation and calibration for the captured image; and

completing image scanning for the object and repeating said image capturing and said compensation without further performing the determining.

16. (Currently Amended) The image scanning method of claim 15, wherein the following are performed when the outcome of the determining is negative:

performing pre-scanning and calculating a calibration parameter; and

storing the calculated calibration parameter in a the control module or in a selected system file.

17. (Previously Presented) The image scanning method of claim 15, further comprising:
- holding the scanning object via a holding board;
 - capturing the image of the scanning object via an optical chassis comprising an image capturing element; and
 - storing the calibration parameter via a control module, and using the stored calibration parameter to perform compensation and calibration for the captured image.
18. (Previously Presented) The image scanning method of claim 17, wherein the holding the scanning object comprises holding the scanning object via the holding board comprising glass or acrylic material.
19. (Previously Presented) The image scanning method of claim 17, wherein the capturing the image of the scanning object comprises capturing the image of the scanning object via the image capturing element of the optical chassis comprising a charge coupled device (CCD).
20. (Previously Presented) The image scanning method of claim 17, further comprising:
- projecting on the scanning object via a linear light source to generate a reflecting image;
 - reflecting the reflected image via one or more reflecting mirrors; and
 - refracting the reflected image through a lens to form an image on the image capturing element.
21. (Previously Presented) The image scanning method of claim 17, further comprising moving the optical chassis along the holding board to scan the object via a driver.
22. (Previously Presented) The image scanning method of claim 17, wherein the storing the calibration parameter comprises storing the calibration parameter via the control module comprising a selected system file.

23. (Currently Amended) An article of manufacture, comprising: a storage medium having stored thereon one or more instructions that, when executed by a processor, result in:

calculating a ~~preset~~ calibration parameter responsive to determining that the ~~preset~~ calibration parameter is not stored in memory;

using an image capturing element to perform image capturing on a provided scanning object;

using the ~~preset~~ calibration parameter to at least compensate or calibrate the captured image; and

completing image scanning for the object and repeating said using an image capturing element for a subsequent scanning object without further calculating.

24. (Currently Amended) The article of claim 23, wherein the instructions, when executed by a processor, further result in:

storing the ~~preset~~ calibration parameter via a control module comprising a read only memory (ROM); and

using the stored ~~preset~~ calibration parameter to perform compensation and calibration for the captured image.

25. (Currently Amended) The article of claim 23, wherein the instructions, when executed by a processor, further result in:

storing the ~~preset~~ calibration parameter via a control module comprising a selected system file; and

using the stored ~~preset~~ calibration parameter to perform compensation and calibration for the captured image.

26.-28. (Canceled)

29. (Previously Presented) An article of manufacture, comprising: a storage medium having one or more instructions stored thereon that, when executed, result in:

determining if a calibration parameter is stored and calculating a calibration parameter if no calibration parameter is stored;

using an image capturing element to perform image capturing on a provided scanning object;

using the calibration parameter obtained at the determining to perform compensation and calibration for the captured image; and

completing image scanning for the object and repeating the image capturing and the compensation without further performing the determining.

30. (Previously Presented) The article of claim 29, wherein the instructions, when executed, further result in the following when the outcome of the determining is negative:

performing pre-scanning and calculating a calibration parameter; and storing the calculated calibration parameter in the control module.

31. (Previously Presented) The article of claim 30, wherein the instructions, when executed, further result in:

storing the calibration parameter via a control module; and

using the stored calibration parameter to perform compensation and calibration for the captured image.

32. (Previously Presented) The article of claim 30, wherein the instructions, when executed, further result in:

storing the calibration parameter via a control module comprising a selected system file; and

using the stored calibration parameter to perform compensation and calibration for the captured image.

33. (Previously Presented) An apparatus, comprising:

means for calculating a calibration parameter prior to image capturing and responsive to determining that the calibration parameter is not stored in memory;

means for performing image capturing on a provided scanning object;

means for at least calibrating the captured image using the calibration parameter read from memory; and

means for completing image scanning for the object without further involving the means for calculating.

34. (Previously Presented) The apparatus of claim 33, further comprising:

means for storing the calibration parameter via a control module comprising a read only memory (ROM); and

means for using the stored calibration parameter to perform compensation and calibration for the captured image.

35. (Previously Presented) The apparatus of claim 33, further comprising:

means for storing the calibration parameter via a control module comprising a selected system file; and

means for using the stored calibration parameter to perform compensation and calibration for the captured image.

36.-38. (Canceled)

39. (Previously Presented) An apparatus, comprising:

means for performing image capturing on a provided scanning object; and

means for determining if a calibration parameter is stored and calculating a calibration parameter if no calibration parameter is stored, for using the calibration parameter obtained at the determining to perform compensation and calibration for the captured image, and for completing image scanning for the object and repeating the image capturing and the compensation without further performing the determining.

40. (Previously Presented) The apparatus of claim 39, further comprising:
means for performing pre-scanning and calculating a calibration parameter when the outcome of the determining is negative; and
means for storing the calculated calibration parameter in the control module.
41. (Previously Presented) The apparatus of claim 40, further comprising:
means for storing the calibration parameter via a control module; and
means for using the stored calibration parameter to perform compensation and calibration for the captured image.
42. (Previously Presented) The apparatus of claim 40, further comprising:
means for storing the calibration parameter via a control module comprising a selected system file; and
means for using the stored calibration parameter to perform compensation and calibration for the captured image.
43. (New) The method of claim 1, further comprising:
storing the calibration parameter in memory; and
reading the stored calibration parameter to calibrate the captured image.
44. (New) The method of claim 43, wherein the memory comprises random access memory (RAM).
45. (New) The method of claim 1, further comprising:
performing a pre-scanning operation responsive to determining that the calibration parameter is not stored in memory, wherein the performing occurs before the calculating.
46. (New) The method of claim 1, further comprising:
compensating the captured image using the calibration parameter.

47. (New) The method of claim 1, further comprising:
storing the calibration parameter in memory; and
reading the stored calibration parameter to calibrate the captured image.

48. (New) The article of claim 23, wherein the instructions, when executed by a processor, further result in:
storing the calibration parameter via a control module comprising a random access memory (RAM); and
using the stored calibration parameter to compensate the captured image.

49. (New) The article of claim 23, wherein the instructions, when executed by a processor, further result in:
storing the calibration parameter via a control module comprising a random access memory (RAM); and
using the stored calibration parameter to calibrate the captured image.

50. (New) The apparatus of claim 33, further comprising:
means for storing the calibration parameter via a control module comprising a random access memory (RAM); and
means for using the stored calibration parameter to compensate the captured image.

51. (New) The apparatus of claim 33, further comprising:
means for storing the calibration parameter via a control module comprising a random access memory (RAM); and
means for using the stored calibration parameter to calibrate the captured image.